Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

HW#16: Line Segments

Geometry

Due Date: Wednesday, September 17th, 2014

**Failure to show work and write in complete sentences will result in a LaSalle.**

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| 1. Measure the following line segments to the nearest tenth of a centimeter and the nearest of an inch.    AB: \_\_\_\_\_\_\_\_ centimeters \_\_\_\_\_\_\_\_\_ inches  CD: \_\_\_\_\_\_\_\_ centimeters \_\_\_\_\_\_\_\_\_ inches | | 2. On a particular line segment, points *A*, *B*, and *C* are collinear, and *B* is between *A* and *C*. If *AB* = 15 and *BC* = 9, what is the measure of *BC*? | | |
| 3. Find *KM.* | | 4. Find *ST.* | | |
| 5. Find *BC.* | | 6. If *AC* = 35, what is the value of MC?  x + 5 2x  A M C | | |
| 7. On the map, AB represents a trail that you are hiking. You start from the beginning of the trail and hike for 90 minutes at a rate of 1.4 miles per hour. How much farther do you need to hike to reach the end of the trail (point B)? | | 8. **On a separate sheet of graph paper**, plot the given points in a coordinate plane. Then state whether the line segments are congruent (congruent means “to have the same length”).   1. Plot the points *A*(2, 2), *B*(4, 2), *C*(–1, –1), *D*(–1, 1)   Are AB and CD congruent? \_\_\_\_\_\_\_\_\_\_\_\_\_   1. Plot the points *M*(1, –3), *N*(4, –3), *O*(3, 4), *P*(4, 4)   Are MN and OP congruent? \_\_\_\_\_\_\_\_\_\_\_\_\_   1. Plot the points *E*(–3, 4), *F*(–1, 4), *G*(2, 4), *H*(–1, 1)   Are EG and FH congruent? \_\_\_\_\_\_\_\_\_\_\_\_\_ | | |
| 9) Find *LM*. | 10) Find *VW*. | | | 11) Find *YZ*. |
| 12) Determine the slope of the line: \_\_\_    b) What is the y-intercept? \_\_\_\_ | | | 13) Are the lines below perpendicular? Explain | |
| 14) a. Write the equation of the line to the right.  b. Graph a line perpendicular to the line on the right. | | | 15) Sketch the graph of a line that crosses through the point (-5, 0) and has a slope of 2. | |
| 16) Crystal builds a doll house on her own for an hour. At that time, her mother starts helping her build, and they work together at a rate of twice the speed Crystal was working alone.  *Plot the scenario on the graph below:*    Completion  Of Doll House  Time | | | 17) **Error Analysis.** Jose determined that the slope of the line below is . Is she correct? *Why* or *why not* – explain & correct. | |